

**Notice of Allowability**

Application No.

09/966,410

Examiner

Anand Bhatnagar

Applicant(s)

TRAJKOVIC ET AL.

Art Unit

2623

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/16/05.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

1. Applicant's amendment filed on 09/16/05 has been entered and made of record.
2. Applicant has amended claims 1, 2, 4, 17, and 18. Currently claims 1-25 are pending.
3. Claims 1-25 are allowed.
4. Applicant's arguments, see remarks pages 14-17, filed 09/16/05, with respect to claims 1, 2, 17, and 18 have been fully considered and are persuasive. The 35USC112 rejection of claims 1, 2, 17, and 18, the 35USC 102 rejection of claims 1, 2, 17, and 18, and the 35USC 103(a) rejection of claims 1 and 3 have been withdrawn.
5. The following is an examiner's statement of reasons for allowance: The closest prior art of Liu et al. (Robust Head Motion Computation by Taking Advantage of Physical Properties," Proc. Workshop On Human Motion, December 2000, pages 73-77) discloses to detect the head motion/rotation/translational in a sequence of images. Regarding claims 4, 10, and 20: Liu et al. does not teach the feature of "determining rotation matrix R that maps points P<sub>k</sub> to F<sub>k</sub> for characterizing a head pose, said points F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub> representing three-dimensional (3-D) coordinates of the respective four points of a reference, frontal view of said facial image, and P<sub>k</sub> is the three-dimensional (3-D) coordinates of an arbitrary point where  $P_i = [X_i \ Y_i \ Z_i]^T$ , said mapping governed according to the relation:

$$R(P_2 - P_1) \propto [1 \ 0 \ 0]^T$$
$$R(P_6 - P_5) \propto [0 \ 1 \ 0]^T$$

That, in combination with the other respective claim limitations.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Contact Information

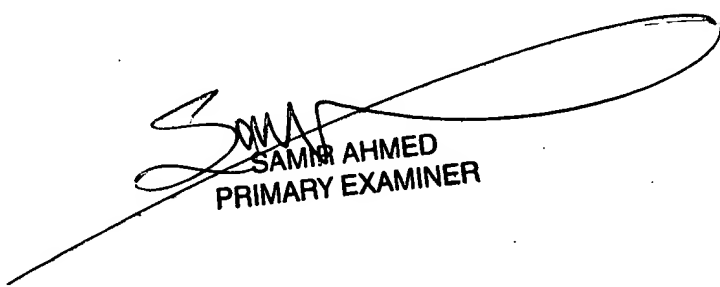
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (571) 272-7416, whose supervisor is Jingge Wu whose number is (571) 272-7429, Central fax is 571-273-8300, and Tech center 2600 customer service office number is 703-306-0377.

AB

Anand Bhatnagar

Art Unit 2623

October 17, 2005

  
SAMIR AHMED  
PRIMARY EXAMINER